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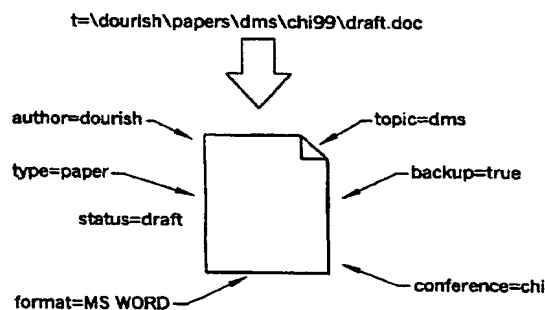
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(54) **Extending application behavior through document properties**

(57) A document management system is provided which organizes, stores and retrieves documents according to properties attached to the documents. A property attachment mechanism allows an application to attach arbitrary static and active properties to a document. The active properties include executable code which perform document management functions to control the state and behavior of the document in response to a triggering event. In this manner, the state and behavior of the document is provided to a user and is accurately maintained even when the application is not running.



**FIG.1**

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# EUROPEAN SEARCH REPORT

Application Number  
EP 99 11 7039

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	WO 91 14222 A (INTERLEAF INC) 19 September 1991 (1991-09-19) * abstract * * page 3, line 1 - page 6, line 11 * * page 10, line 1 - page 12, line 28 * * page 13, line 1 - page 19, line 22 * ---	1,2	G06F17/30
X	M. FREDRIKSSON: "Active Documents" SECOND HK/R STUDENT CONFERENCE ON ADVANCED OBJECT-ORIENTED CONCEPTS, 'Online! 17 January 1997 (1997-01-17), pages 1-10, XP002151012 Ronneby, SE Retrieved from the Internet: <URL:http://www.ide.hk-r.se/{bosch/AOOC-pa pers.html}> 'retrieved on 2000-10-20! * abstract * 2. Problem Description, p.1-3 5. The Active Document Model, p.6-9 6. The Active Document Environment, p.10 ---	3,4,7,8	
X	M. FREDRIKSSON & M. SVAHNBERG: "Fargo: Technical Description" 'Online! 1997, UNIVERSITY COLLEGE OF KARLSKRONA/RONNEBY, RONNEBY, SE XP002151013 Retrieved from the Internet: <URL: http://www.sikt.hk-r.se/{fargo}> 1. Introduction, p.1 3. Active Documents, p.3-4 ---	5,6,9-12	TECHNICAL FIELDS SEARCHED (Int.Cl.7) G06F
A	US 5 528 739 A (LUCAS PETER ET AL) 18 June 1996 (1996-06-18) * abstract * * column 1, line 26 - column 2, line 26 * * column 23, line 25 - line 62 * --- -/-	2,8	
The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 25 October 2000	Examiner Corcoran, P
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ..... &amp; : member of the same patent family, corresponding document</p>			

EPO FORM 1503 03.92 (Pdc01)



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# EUROPEAN SEARCH REPORT

Application Number  
EP 99 11 7039

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
A	<p>G. STAROVIC, V. CAHILL &amp; B. TANGNEY: "An Event-Based Object Model for Distributed Programming" 'Online! December 1995 (1995-12), TRINITY COLLEGE DUBLIN, TCD-CS-95-28, DUBLIN, IE XP002151014</p> <p>Retrieved from the Internet: &lt;URL: <a href="http://www.cs.tcd.ie/publications/tech-reports">http://www.cs.tcd.ie/publications/tech-reports</a>&gt;</p> <p>* abstract *</p> <p>2. Objects, Events and Constraints, p.2-6</p> <p>-----</p>	1-12	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
The present search report has been drawn up for all claims			
Place of search <b>MUNICH</b>		Date of completion of the search <b>25 October 2000</b>	Examiner <b>Corcoran, P</b>
<p><b>CATEGORY OF CITED DOCUMENTS</b></p> <p>X : particularly relevant if taken alone  Y : particularly relevant if combined with another document of the same category  A : technological background  O : non-written disclosure  P : intermediate document</p> <p>T : theory or principle underlying the invention  E : earlier patent document, but published on, or after the filing date  D : document cited in the application  L : document cited for other reasons  &amp; : member of the same patent family, corresponding document</p>			

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**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 99 11 7039

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on  
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25-10-2000

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9114222 A	19-09-1991	EP 0518967 A	23-12-1992
		US 5579519 A	26-11-1996
US 5528739 A	18-06-1996	NONE	

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82